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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			EXAMINER PERSINO, RAYMOND B	
			ART UNIT 2682	PAPER NUMBER
DATE MAILED: 01/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/929,174	Applicant(s) MINEAR ET AL.	
	Examiner Raymond B. Persino	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 10, 13-17, 22-26, 31, 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over PUHL et al (US 6,223,291 B1) in view of WAITE et al (US 5,103,476 A).

Regarding claim 1, Puhl et al discloses a system for controlling software applications on one or more wireless devices, comprising: one or more wireless devices (11 of fig 1), at least one wireless device in selective communication with a wireless network (19 of fig 1) and having one or more resident software applications selectively executable on the wireless device, at least one software application requiring a license for execution of the software application, and upon the start up of the wireless device, the wireless device determining if a license is present to execute the software application; one or more application managing servers, at least one application managing server selectively communicating with the one or more wireless devices across the wireless network and selectively providing a license for the use of a software application; and wherein, upon a license not being present, the wireless device selectively prompting the application managing server for transmission of a license,

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receiving the transmitted license, and installing the license on the wireless device such that the licensed software application is executable (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 2, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Waite et al further discloses that upon the attempted execution of a software application for which a license is not present, prompts the user of the wireless device to obtain the requisite license for execution of the software application (column 2 line 36 to column 4 line 13).

Regarding claim 3, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the applications managing server also selectively downloads software applications and the requisite license for the software applications to wireless devices over the wireless

network (column 6 lines 17-39 and column 7 lines 25-43). In the alternative, Waite et al further discloses the applications managing server also selectively downloads software applications and the requisite license for the software applications to wireless devices over the wireless network (column 2 line 36 to column 4 line 13).

Regarding claim 4, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses the applications managing server stores the license for of a specific software application on a specific wireless device, and upon the attempted checking for licenses, the wireless device selectively prompting the application managing server for transmission of a copy of the license (column 7 lines 1-11). In the alternative, Waite et al further discloses the managing server stores the license for of a specific software application on a specific wireless device, and upon the attempted execution of a software application on a wireless device, the wireless device selectively prompting the application managing server for transmission of a copy of the license (column 2 line 36 to column 4 line 13).

Regarding claim 5, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the wireless device stores the license for execution of a specific software application on the wireless device (column 6 lines 17-39). In the alternative, Waite et al further discloses that the wireless device stores the license for execution of a specific software application on the wireless device (column 2 line 36 to column 4 line 13).

Regarding claim 10, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the wireless device is a cellular telephone (column 2 line 45).

Regarding claim 13, Puhl et al discloses a system for controlling software applications on a wireless network (19 of fig 1), comprising: wireless communication means (11 of fig 1) for selectively communicating with a wireless network and having one or more resident software applications selectively executable thereon, at least one software application requiring a license for execution of the software application, and upon the start up of the wireless device, the wireless communication means determining if a license is present to execute the software application; software application managing means for managing software applications on one or more wireless communication means, the software application managing means selectively in communication across the wireless network with the wireless communication means and selectively providing a license for the use of a software application; and wherein, upon a license not being present, the wireless communication means selectively prompting the software application managing means for transmission of a license, receiving the transmitted license, and installing the license on the wireless communication means such that the licensed software application is executable (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other

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words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 14, Puhl et al discloses a method for controlling software applications on one or more wireless devices (11 of fig 1), at least one wireless device in selective communication with a wireless network (19 of fig 1) and having one or more resident software applications selectively executable on the wireless device and one or more software applications requiring a license for execution of the software application, and the one or more wireless devices in selective communication with one or more application managing servers across the wireless network, the method comprising the steps of: starting up the wireless device; determining if a license is present for the wireless device to execute the software application; and if a license is not present, then the steps of: selectively prompting the application managing server from the wireless device for transmission of a license; selectively transmitting a license from the application managing server to the wireless device; receiving the transmitted license at the wireless device; and installing the license on the wireless device such that the licensed software application is executable (column 6 lines 17-39 and column 7 lines

45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software.

Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 15, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Waite et al further discloses that upon the attempted execution of a software application for which a license is not present, prompting the user of the wireless device to obtain the requisite license for execution of the software application (column 2 line 36 to column 4 line 13).

Regarding claim 16, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Waite et al further discloses that the determining is made at the wireless device if a license is present for the wireless device to execute the software application (column 2 line 36 to column 4 line 13).

Regarding claim 17, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the determining if

a license is present for the wireless device to execute the software application is determining at the application managing server if a license is present for the wireless device to execute the software application (column 6 lines 16-39 and column 7 lines 25-61).

Regarding claim 22, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses selectively transmitting a license from the application managing server to the wireless device is selectively transmitting a copy of a license for the software application of the wireless device held at the application managing server (column 7 lines 1-11).

Regarding claim 23, Puhl discloses a method for controlling software applications on one or more wireless devices (11 of fig 1), at least one wireless device in selective communication with a wireless network (19 of fig 1) and having one or more resident software applications selectively executable on the wireless device and one or more software applications requiring a license for each execution of the software application, and the one or more wireless devices in selective communication one or more application managing servers across the wireless network, the method comprising the steps of: starting up the wireless device step for starting up a wireless device; a licensing determination step for determining if a license is present for the wireless device to execute the software application; and if a license is not present, then the steps of: a license transmission-prompting step for selectively prompting the application managing server from the wireless device for transmission of a license; a transmission step for selectively transmitting a license from the application managing server to the

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wireless device; a license receipt step for receiving the transmitted license at the wireless device; and a license installation step for installing the license on the wireless device such that the licensed software application can be executed (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 24, Puhl discloses a wireless device (11 of fig 1) in selective communication with a wireless network (19 of fig 1) and having one or more resident software applications selectively executable on the wireless device, one or more of the resident software applications requiring a license for execution of the software application, and upon the start up of the wireless device, the wireless device determining if a license is present to execute the software application, the wireless device in selective communication with one or more application managing servers across the wireless network, and upon a license being not present, the wireless device

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selectively prompts the application managing server for transmission of a license, receives the transmitted license, and installs the license such that the software application is executable (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 25, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Waite et al further discloses that that upon the attempted execution of a software application for which a license is not present, prompts the user of the wireless device to obtain the requisite license for execution of the software application (column 2 line 36 to column 4 line 13).

Regarding claim 26, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the wireless

device stores the license for execution of a specific software application on the wireless device (column 6 lines 17-39).

Regarding claim 31, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al further discloses that the wireless device is a cellular telephone (column 2 line 45).

Regarding claim 34, Puhl discloses a computer readable medium, a program that directs a wireless device (11 of fig 1) having a computer platform and in selective communication with a wireless network (19 of fig 1), the wireless device further having one or more resident software applications selectively executable on the wireless device with at least one software application requiring a license for execution of the software application, to perform the steps of: starting up the wireless device; determining if a license is present for the wireless device to execute the software application; and if a license is not present, then the steps of: selectively prompting, from the wireless device, an application managing server on the wireless network for transmission of a software application license; receiving the transmitted software application license at the wireless device; and installing the license on the wireless device such that the licensed software application is executable (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach the software application requiring a license for each execution of the software application, and upon the attempted execution of a software application, the wireless device determining if a license is present to execute the software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite

et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

Regarding claim 35, Puhl discloses a wireless device (11 of fig 1) in selective communication with a wireless network (19 of fig 1), comprising: a selectively executable resident software application; logic configured to determine if a license corresponding to the resident software application is not present; logic configured to, in response to determining that a license is not present, prompt, via a wireless network, an application managing server for transmission of a corresponding license; logic configured to, in response to determining that a license is not present, receive the corresponding license over a wireless network; and logic configured to, in response to determining that a license is not present, install the corresponding license such that the software application is executable (column 6 lines 17-39 and column 7 lines 45-61). However, Puhl et al does not teach logic configured to detect an attempt to execute the resident software application. In other words, Puhl et al teaches that the wireless device checks for licenses at its startup instead of at each execution of the software. Nevertheless, Waite et al discloses licenses being checked at each execution of software (column 2 line 36 to column 3 line 8 and column 4 lines 8-68). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention

was made to implement Waite et al's tamperproof overlay in Puhl et al's teaching. This modification would enhance Puhl et al's teaching by preventing license abuse after activation (see Waite et al, column 4 lines 49-68).

3. Claims 6-9, 18-21 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puhl et al (US 6,223,291 B1) in view of WAITE et al (US 5,103,476 A) and further in view of an examiner's official notice evidenced by HERSHEY et al (US 4,924,378 A), WOLF (US 5,673,315 A) and DANIELI (US 6,510,513 B1).

Regarding claims 6-9, 18-21 and 27-30 see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al suggests finite duration licenses but does not do so with detail (column 8 lines 18-25). WAITE et al also suggests finite duration licenses but does not do so with detail (column 3 lines 4-8). Nevertheless the examiner takes official notice that it was known in the art at the time the invention was made to issue licenses of a) a finite duration and expires on a fixed date; b) wherein the license expires after a predetermined number of executions of the software application on the wireless device; c) wherein the license is of a finite duration and expires after the elapse of a predetermined duration since the software application was downloaded to the wireless device; and d) wherein the license is of a finite duration and expires after the elapse of a predetermined duration of usage of the software application. Moreover, Hershey et al evidences that it is known for a license to expire either on a fixed date or after a predetermined amount of time after installation (column 5 line 62 to column 6 line 6). Also, Wolf evidences that it is known for a license to expire after a period of usage (column 2 lines 1-14). In addition, Danieli evidences that

it is known for a license to expire after a number of executions (column 20 lines 22-38). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a license of finite duration. The most significant advantage of a license of finite duration is that it could be provided to a user at a reduced cost thus allowing a user to need to only pay for his/her use of the application.

4. Claims 11, 12, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puhl et al (US 6,223,291 B1) in view of WAITE et al (US 5,103,476 A) and further in view of an examiner's official notice.

Regarding claims 11 and 12, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al suggests that the client device is a wireless device (column 2 lines 45-46). However, Puhl et al does not specifically indicate that the wireless device is a personal digital assistant or a pager. Nevertheless, the examiner takes official notice that it was well known at the time the invention was made that a personal digital assistant can be a wireless device and that a pager is a wireless device. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a license of finite duration. Allowing a PDA for pager to be used with the invention of Puhl et al will enhance the teaching of Puhl et al by expanding the number and type of devices that the teaching can be used with.

Regarding claims 32 and 33, see the rejection of the parent claim concerning the subject matter this claim is dependent upon. Puhl et al suggests that the client device is a wireless device (column 2 lines 45-46). However, Puhl et al does not specifically

indicate that the wireless device is a personal digital assistant or a pager. Nevertheless, the examiner takes official notice that it was well known at the time the invention was made that a personal digital assistant can be a wireless device and that a pager is a wireless device. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a license of finite duration. Allowing a PDA for pager to be used with the invention of Puhl et al will enhance the teaching of Puhl et al by expanding the number and type of devices that the teaching can be used with.

Response to Arguments

5. Applicant's arguments filed 8/13/2004 have been fully considered but they are not persuasive.

The applicant first argues that Puhl discloses sending license information in response to a server generated request rather than in response to a wireless device generated request. However, the examiner would like to point out that the web server is simply a conduit for the wireless device generated request. In other words, the wireless device's generated request is ultimately received by the certificate authority, which then responds by sending the license to the wireless device. The claim does include limitations on intermediary entities in the communicative path between the wireless device and certificate authority. As such, the examiner reads Puhl to teach of a certificate authority sending license information in response to a wireless device

generated request. Therefore, the examiner disagrees that Puhl teaches away from a device prompting an application manager server.

The applicant further argues that Waite discloses checking for license information on the device itself, and not requesting such information from a remote server. The examiner would like to point out that the language of applicant's claim 1 literally reads on checking for license information on the device itself, and not requesting such information from a remote server. It is a literal reading of the claim that the device only needs to prompt a server for license information in response to a license not being present in the wireless device. Moreover, it is within Waite's teaching that the device checks for a license for each execution of the associated software. Thus, Waite's teaching is consistent with the applicant's claim language. Therefore, the examiner disagrees that Waite teaches away from a device prompting a server for license information in response to an attempted execution of the associated software.

Moreover, the applicant argues that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Waite provides motivation in that the modification of Puhl et al's to include Waite's teaching would prevent license abuse after activation (see Waite et al, column 4 lines 49-68).

Lastly, the applicant argues the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (703)

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308-7528. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond B. Persino *RP*
Examiner
Art Unit 2682

RP


VIVIAN CHIN
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TECHNOLOGY CENTER 2600